

REMARKS

This Amendment and Response is fully responsive to the Office Action dated February 2, 2006. In that Office Action, claims 18-19, 22-23, 25-26, and 34-35 were rejected, and claims 24 and 27 were objected to. Claims 1-17, 20-21, and 29-33 were previously cancelled.

By this Amendment, claims 18 and 23 have been amended, claims 24 and 27 have been cancelled, and new claims 36 and 37 have been added. Claims 18, 19, 22-23, 25-26, 28, and 34-37 are pending in this application. No new matter has been added.

Claim Rejections:

Rejections Under 35 U.S.C. § 112

The Examiner has rejected claim 23 under 35 U.S.C § 112. The Examiner asserts that it is unclear how claim 23 differs from claim 18 as previously amended to include the jacket “surrounding” the heart. Without conceding that this rejection is proper, the Applicant has amended claim 23 to recite that the claimed jacket is dimensioned so as to circumferentially extend completely around said heart. In contrast, claim 18 does not require the jacket to circumferentially extend completely around the heart. Thus, the Applicant respectfully submits that claim 18 and amended claim 23 differ in scope. Reconsideration and withdrawal of the rejection of claim 23 under 35 U.S.C. § 112 is respectfully requested.

Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 18, 19, 22, 23, 28, and 35 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,839,842 (“Wanat”). In addition, the Examiner has rejected claims 18, 19, 22, 23, 26, 28, 34, and 35 under 35 U.S.C § 102(b) as being anticipated by U.S. Patent 1,682,119 (“Field”). The Examiner has further rejected claims 18, 19, 22, 23, 28, and 34 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 3,551,543 (“Mercer”). Finally, the Examiner has rejected claims 18, 19,

22, 23, 25, 28, 34, and 35 under 35 U.S.C § 102(b) as being anticipated by U.S. Patent 2,376,4452 ("Mehler").

The pending claims recite a device for treating a disease of the heart, and include several structural features relating to the configuration of the claimed device for placement on a heart. For example, independent claim 18 recites, in part, that the device comprises a jacket dimensioned to be placed on the heart, surrounding at least a lower portion of the heart. The Applicant respectfully believes that the Examiner has not given due consideration to these structural features of the pending claims. These structural features distinguish the pending claims over the cited prior art, which have nothing to do with devices for treating diseases of the heart, and as discussed below, fail to disclose or fairly suggest devices structurally configured for treating diseases of the heart.

Additionally, without conceding that the outstanding rejections are proper, the Applicant has amended independent claim 18 to more clearly point out and distinctly claim the present invention, and to further clarify the structural features for treating a disease of the heart. Claim 18 as amended recites a device for treating a disease of a heart, the device comprising, in part, a jacket sized and shaped to snugly conform to an external geometry of the heart. Claim 18 as amended further recites that the jacket is constructed from a biocompatible material selected to exhibit an amount of expansion in response to a force applied to said material by a heart in a first direction greater than an amount of expansion in response to said force applied to said material by a heart in a second direction. Thus, as amended, claim 18 recites additional structural features that are neither disclosed or suggested in the cited prior art.

The claimed device has substantial advantages over the prior art. For example, the claimed device is for treating diseases of the heart by constraining circumferential expansion of the heart during diastole while permitting substantially unimpeded contraction of the heart during systole. Again, in stark contrast, the cited prior art references have nothing to do with devices for treating diseases of the heart. As discussed below, the Applicant believes that the pending claims distinguish over the prior art of record and are in condition for allowance.

Claims 18, 19, 22, 23, 28, and 35 Are Patentable Over the Wanat Patent

Independent claim 18 as amended recites a device for treating a disease of a heart, the device comprising, in part, a jacket sized and shaped to snugly conform to an external geometry of the heart. In contrast, the Wanat patent discloses a “cleansing kit” including an “open cell mesh bag” enclosing a sponge and a toilet bar. The Examiner cites to the mesh bag (2) as disclosing the jacket of claim 18, and asserts that “if one selects a heart of the appropriate size any size net would meet the relative limitations set forth in the claims.” The Examiner further asserts that the device of the Wanat patent is “inherently capable of performing the other functions set forth in the functional language of the claim.” The Applicant respectfully disagrees with the Examiner’s position. Furthermore, the Applicant respectfully asserts that claim 18 as amended distinguishes over the Wanat patent.

First, the Wanat patent does not teach or fairly suggest that its “netted mesh” pouch is shaped to snugly conform to an external geometry of a heart as recited in amended claim 18. To the contrary, the shapes of the items enclosed by the “netted mesh” pouch of Wanat (e.g., a sponge in the shape of a hand and a “toilet bar”) are entirely different than the human heart. Compare, e.g., the figure of Wanat with FIGS. 1-1B and 2-2B of the pending application. Moreover, nothing in the Wanat patent suggests that the mesh pouch is shaped to snugly conform to its contents, regardless of their shapes. Thus, the Wanat patent fails to disclose a jacket sized and shaped to snugly conform to an external geometry of the heart, as recited in claim 18.

Additionally, claim 18 has further been amended to recite a biocompatible material selected to exhibit an amount of expansion in response to a force applied to said material by a heart in a first direction greater than an amount of expansion in response to said force applied to said material by a heart in a second direction. In contrast, the Wanat patent fails to mention any expansion characteristics of the disclosed “netted mesh” pouch, much less disclose or suggest a biocompatible material that exhibits an amount of expansion in response to a force applied in one direction greater than an amount of expansion in response to the force applied in a second direction. Moreover, the Wanat patent teaches

enclosing a sponge (see Figure) and a toilet bar in the netted mesh pouch. It therefore fails to disclose or suggest a jacket exhibiting different amounts of expansion in response to a force applied by a heart in different directions. Nor does the Wanat patent teach or suggest any therapeutic effects of the disclosed pouch even if it could be used on living tissue. The Wanat patent simply has nothing to do with a device for placement on the heart.

Thus, for at least these reasons, claim 18 as amended is believed to be patentable over Wanat. Additionally, claims 19, 22, 23, 28, and 35, which depend from claim 18, are also patentable over Field for at least the same reasons. Reconsideration and withdrawal of the rejection based on Wanat is respectfully requested.

Claims 18, 19, 22, 23, 26, 28, 34, and 35 are Patentable Over the Field Patent

Independent claim 18 as amended recites a device for treating a disease of a heart, the device comprising, in part, a jacket sized and shaped to snugly conform to an external geometry of the heart.

In contrast, the Field patent discloses and claims a cleaning device including a soap contained in an “envelope or container” made from a metallic mesh. The disclosed metallic mesh envelope provides “scraping edges” for “scraping the surface to be cleaned.” See p. 2, ll. 4-15. The shape of the contents of the metallic mesh envelope is entirely different than the shape of the heart. Compare Fig. 1 of the Field patent with FIGS. 1-1B and 2-2B of the pending application. Thus, the Field patent fails to disclose or suggest a jacket sized and shaped to snugly conform to an external geometry of the heart, as recited in claim 18, regardless of the size of the heart.

Nor does the Field patent disclose or suggest a biocompatible material selected to exhibit an amount of expansion in response to a force applied to said material by a heart in a first direction greater than an amount of expansion in response to said force applied to said material by a heart in a second direction, as claimed in amended claim 18. The Field patent is silent as to the expansion characteristics of the disclosed metallic mesh envelope. And even if, for the purpose of the present argument, the metallic mesh envelope of the Field

patent could be construed to exhibit different expansion characteristics depending on the direction of an applied force, it plainly does not teach or fairly suggest such differential expansion characteristics in response to a force applied by a heart in different directions, or the associated advantages.

Furthermore, the metallic envelope of the Field patent includes “scraping edges” which render the metallic mesh envelope wholly unsuitable as a jacket sized and shaped to snugly conform to an external geometry of a heart. This further emphasizes the differences between claim 18 and the Field patent.

Thus, for at least these reasons, claim 18 as amended is believed to be patentable over the Field patent. Additionally, claims 19, 22, 23, 28, and 35, which depend from claim 18, are also patentable over Field for at least the same reasons. Reconsideration and withdrawal of the rejection based on Field is respectfully requested.

Claims 18, 19, 22, 23, 28, and 34 are Patentable Over the Mercer Patent

Independent claim 18 as amended recites a device for treating a disease of a heart, the device comprising, in part, a jacket sized and shaped to snugly conform to an external geometry of the heart. In contrast, the Mercer patent discloses, in relevant part, a method for extruding a plastic net in a sheet or tubular form. No other shapes for the disclosed net are taught. As can perhaps best be seen in FIGS. 1-1B and 2-2B of the pending application, a tubular net, as disclosed in the Mercer patent, will not snugly conform to an external geometry of a heart as recited in claim 18 as amended.

Moreover, claim 18 has further been amended to recite a biocompatible material selected to exhibit an amount of expansion in response to a force applied to said material by a heart in a first direction greater than an amount of expansion in response to said force applied to said material by a heart in a second direction. The Examiner asserts that the net of the Mercer patent is specifically designed to have differential expansion properties. The Applicant respectfully disagrees with the Examiner’s position. In particular, the Mercer patent discloses a net that “has extensibility (i.e., is not dimensionally stable)” when a tension is applied in a longitudinal direction, and is “dimensionally stable” (i.e., does not

have “extensibility”) when a tension is applied in a direction transverse to the longitudinal direction. See Mercer, FIGS. 1-2 and Col. 3, ll. 27-42. Thus, the net of the Mercer patent can expand in one direction, but cannot expand in a direction transverse to that direction. In contrast, claim 18 recites, in part, that the claimed biocompatible material exhibits different amounts of expansion in response to a force applied to the material by a heart in a first direction as compared to when the force is applied to the material by the heart in a second direction.

Furthermore, even if, for the purpose of the present argument, the Mercer patent did disclose a material having differential expansion characteristics, it plainly does not teach or fairly suggest such differential expansion characteristics in response to a force applied by a heart.

Thus, for at least these reasons, claim 18 as amended is believed to be patentable over Mercer. Additionally, claims 19, 22, 23, 28, and 35, which depend from claim 18, are also patentable over Mercer for at least the same reasons. Reconsideration and withdrawal of the rejection based on Mercer is respectfully requested.

Claims 18, 19, 22, 23, 25, 28, 34, and 35 are Patentable Over the Mehler Patent

The Mehler patent discloses “tubular netting,” and is “concerned primarily with the lowering of dynamite or other explosives in drill holes.” No shapes for the netting other than tubular are disclosed. Moreover, Mehler explicitly teaches that an object of the invention disclosed the provision of a tubular netting “which is substantially uniform in diameter” See Col. 2, ll. 41-44.

In contrast, independent claim 18 as amended recites a device for treating a disease of a heart, the device comprising, in part, a jacket sized and shaped to snugly conform to an external geometry of the heart. As can perhaps best be seen in FIGS. 1-1B and 2-2b of the pending application, a tubular netting, particularly one that is substantially uniform in diameter as disclosed in the Mehler patent, will not snugly conform to the external geometry of the heart, as recited in claim 18.

Furthermore, nothing in the Mehler patent discloses or suggests a jacket constructed from a biocompatible material selected to exhibit an amount of expansion in response to a force applied to said material by a heart in a first direction greater than an amount of expansion in response to said force applied to said material by a heart in a second direction, as claimed in claim 18 as amended. Rather, the Mehler patent is silent as to the expansion characteristics of the disclosed net. And even if the Mehler patent could be construed to disclose such differential expansion characteristics, which is not conceded, the Mehler patent plainly does not teach or fairly suggest such differential expansion characteristics in response to a force applied by a heart. To the contrary, the Mehler patent relates to a netting for containing dynamite or other explosives. It has nothing to do with a device for treating a disease of the heart.

Thus, for at least these reasons, claim 18 as amended is believed to be patentable over Mehler. Additionally, claims 19, 22, 23, 28, and 35, which depend from claim 18, are also patentable over Mehler for at least the same reasons. Reconsideration and withdrawal of the rejection based on Mehler is respectfully requested.

Allowable Subject Matter


The Applicant appreciates the Examiner's acknowledgement that claims 24 and 27 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Newly added claims 36 and 37 correspond to claims 24 and 27, respectively, rewritten in independent form. The Applicant believes that claims 36 and 37 are in condition for allowance.

In conclusion, all pending claims are currently believed to be patentable over the cited prior art, and thus are believed to be in condition for allowance. A Notice of Allowance is respectfully requested.

Respectfully Submitted,

FAEGRE & BENSON LLP

By:

A handwritten signature in black ink, appearing to read "Brian W. Oberst", written over a horizontal line.

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